**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Casey, William
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-027735
**Date Inspected:** 08-Jun-2012

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700
**OSM Departure Time:** 1730
**Location:** Job site

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|---|---|---|---|---|---|---|---|---|
| **CWI Name:** | As Noted Below | | | **CWI Present:** | ☑ Yes | ☐ No | | |
| **Inspected CWI report:** | ☐ Yes | ☐ No | ☑ N/A | **Rod Oven in Use:** | ☑ Yes | ☐ No | ☐ N/A | |
| **Electrode to specification:** | ☑ Yes | ☐ No | ☐ N/A | **Weld Procedures Followed:** | ☑ Yes | ☐ No | ☐ N/A | |
| **Qualified Welders:** | ☑ Yes | ☐ No | ☐ N/A | **Verified Joint Fit-up:** | ☑ Yes | ☐ No | ☐ N/A | |
| **Approved Drawings:** | ☑ Yes | ☐ No | ☐ N/A | **Approved WPS:** | ☑ Yes | ☐ No | ☐ N/A | |
| | | | | **Delayed / Cancelled:** | ☐ Yes | ☑ No | ☐ N/A | |

**Bridge No:** 34-0006
**Component:** OBG/Tower

**Summary of Items Observed:**

Quality Assurance Inspector (QA) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Tower (ESW Repairs)

The QA inspector periodically observed ABF/JV qualified welder Wai Kit Lei #2953 performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW "E" and was welded from face B. The repair surface and surrounding area was brought to preheat temperature by the use of induction heaters and the preheat temperature greater than 110º C was confirmed by ABF Quality Control (QC) prior to welding. The location and dimensions excavated for this repair were: (Y=6645mm~7640mm, Width 55mm, Depth 38mm). The ABF Quality Control (QC) Jesse Cayabyab was noted monitoring the welding parameters during welding and were recorded as (A=237, V=22.8). The repair was completed prior to the end of the QA inspectors shift.

The QA inspector observed ABF/JV personnel performing grinding of the lower radius weld access hole for weld ESW "P" from the external face. The QC Inspector Bernard Docena was noted to be present in order to monitor the progression of work.

The QA inspector periodically observed ABF/JV qualified welder Luo Xiao Hua #1291 performing Shielded

Metal Arc Welding (SMAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair. The joint being welded was tower shear plate designated as ESW “S” welded from the internal side. The repair surface and surrounding area was brought to temperature by the use of induction heaters and the preheat temperature was confirmed by ABF Quality Control (QC) prior to welding. The location and dimensions excavated for this repair were: (Y=5460mm~5630mm, Width 40mm, Depth 17mm). The ABF Quality Control (QC) Fred Michels was noted monitoring the welding parameters during welding. It was noted that the weld repair was completed prior to the end of the QA inspectors shift.

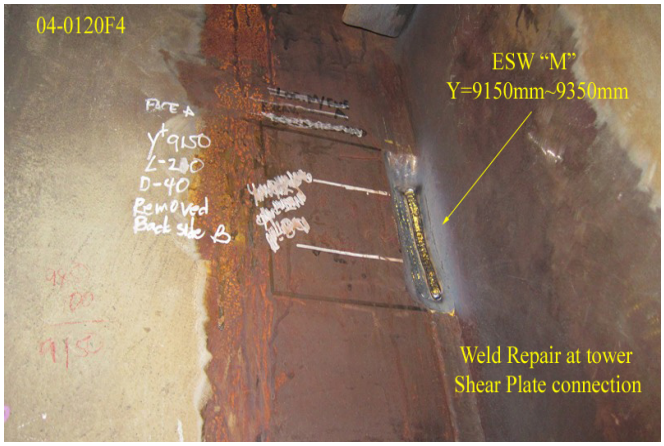
The QA inspector noted and periodically observed ABF/JV qualified welder Wan Xiao Jian #9677 performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW “M” welded from face A. The repair surface and surrounding area was brought to temperature the use of induction heaters and the preheat temperature of greater than 110º C was confirmed by ABF Quality Control (QC) prior to welding. The location and dimensions excavated for this repair were: (Y=8240mm~8770mm, Width 55mm, Depth 40mm). The ABF Quality Control (QC) Jesse Cayabyab was noted monitoring the welding parameters during welding and were recorded as (A=229, V=22.1). The repair was completed prior to the end of the QA inspectors shift.

The QA inspector periodically observed ABF/JV qualified welder Wan Xiao Jian #9677 performing Flux Core Arc Welding (FCAW) implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3000-3Repair. The joint being welded was tower shear plate designated as ESW “M” welded from face A. The repair surface and surrounding area was brought to temperature the use of induction heaters and the preheat temperature of greater than 110º C was confirmed by ABF Quality Control (QC) prior to welding. The location and dimensions excavated for this repair were: (Y=9150mm~9350mm, Depth 40mm). The ABF Quality Control (QC) Fred Michels was noted monitoring the welding parameters during welding. The repair was completed prior to the end of the QA inspectors shift.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

**Summary of Conversations:**

No relevant conversations.




# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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|---|---|---|
| **Inspected By:** | Patterson,Rodney | Quality Assurance Inspector |
| **Reviewed By:** | Levell,Bill | QA Reviewer |